



WMSC Commissioner Brief: W-0059 – Improper RWP at Tysons Corner Station – September 3, 2020

Prepared for Washington Metrorail Safety Commission meeting on January 26, 2021

Safety event summary:

A Metrorail Systems Maintenance and Low Voltage Power crew assigned to conduct maintenance on the platform edge lights at the Tysons Corner Station incorrectly downgraded their planned form of protection with the approval of the Rail Operations Control Center, putting the work crew at risk.

The work had been properly scheduled under Exclusive Track Occupancy (ETO) protection with a supervisory power outage, but the Roadway Worker In Charge (RWIC) downgraded that request to Foul Time with no power outage at 12:27 a.m., immediately after the ROCC controller asked the work crew to hot stick and confirm that power had been de-energized. The crew did not appear to have proper work zone setup equipment. The ROCC radio controller on duty at the time was a student controller who was being overseen by a certified controller.

The RWIC then requested and was granted permission for the crew to work under the reduced, Foul Time protection while the third rail was energized.

In an interview following the event, the RWIC stated that they felt that there was no potential for the workers to contact the third rail and that the reduced protection was safe because there was not a lot of work to be done. This is not accurate.

In fact, the work crew was on the tacks without required work zone safety equipment in place. Two individuals on the crew were also not wearing proper personal protective equipment (hardhats).

A Low Voltage Power Electrician on the work crew stated that they feel scared to raise a good faith challenge, a procedure that officially guarantees no reprisal for raising safety concerns, because they fear that raising the challenge could lead to retaliation. The electrician stated that they just accept the risk and do not put their job on the line by raising a good faith challenge. The good faith challenge process is meant to allow any member of the work crew to raise safety concerns without fear of retribution.

Metrorail's rule related to the good faith challenge states that it is Metrorail management's responsibility to guarantee that each roadway worker has the right to challenge the protection that is put in place. The rule states that any adverse action or retaliation in conjunction with filing a good faith challenge or raising any other safety issue shall be immediately reported. The rule does not explicitly ban retaliation.

The work continued under improper roadway worker protection for approximately two hours until a WMATA SAFE employee who had identified the danger posed due to the radio transmissions confirmed that the work zone setup was in fact improper and that work had to be stopped. The ROCC required the work crew to clear the roadway at 2:44 a.m.

At 3:35 a.m., the ROCC Superintendent directed the ROCC Assistant Superintendent to remove the student controller and on-the-job training instructor controller from service.

Metrorail did not notify the WMSC of this safety event within the required two-hour notification window.



Probable Cause:

Metrorail's lack of safety promotion to ensure that WMATA employees understand and implement critical safety rules, Metrorail's failure to guarantee that the good faith challenge process is fully understood and implemented to establish confidence in the process, and Metrorail's failure to fully implement a non-punitive safety reporting system at all levels of the organization contributed to this event.

Corrective Actions:

Systems Maintenance developed a Lessons Learned focused on roadway access, work zone setup, and Foul Time protection.

WMATA's Safety Department recommended that the ROCC re-evaluate student controller and on-the-job training instructor responsibilities. (The WMSC has already required WMATA to create an OJTI procedure and training as part of the ROCC Audit.)

The ROCC also developed a Lessons Learned focused on roadway access, work zone setup and Foul Time protection.

The Systems Maintenance employees directly involved in this event were scheduled for Level IV RWP refresher training.

WMSC staff observations:

Roadway Worker Protection is critical to the safety and survival of Metrorail employees and contractors and it is critical that anyone working on or around the roadway has a clear understanding of the steps required to keep themselves and others safe. WMATA must place a renewed focus on safety promotion and safety assurance efforts to ensure that workers understand safety rules and that they are allowed and required to properly implement those rules.

As part of the ongoing effort to rewrite Metrorail rules and procedures, Metrorail should also consider strengthening the protections against retaliation against anyone who raises a good faith challenge or other safety concern.

This event demonstrates shortfalls in communication within work crews as well as between the crew and the ROCC that WMATA should analyze for opportunities for improvement.

The WMSC commends WMATA Safety Department personnel for identifying this unsafe activity based on radio transmissions at the time of the event and quickly responding to investigate and mitigate the risks introduced by the improper RWP by stopping the work.

Staff recommendation: Adopt final report.



Washington Metro Area Transit Authority

Department of Safety and Environmental Management (SAFE)

FINAL REPORT OF INVESTIGATION A&I E20328

Date of Event:	9/3/2020
Type of Event:	Improper Roadway Worker Protection
Incident Time:	00:29 hrs.
Location:	Tysons Corner Station, Tracks 1 and 2
Time and How received by SAFE:	02:21 hrs. – SAFE – Self-Reported
WMSC Notification Time:	04:27 hrs.
Rail Vehicle:	N/A
Injuries:	No
Damage:	No
SMS I/A Incident Number:	20200903#88722

**Tyson's Corner Station – Improper Roadway Worker Protection
September 03, 2020**

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Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording Service
CCTV	Closed Circuit Television
CM	Chain Marker
COMM	Department of Communications Maintenance
ETO	Exclusive Track Occupancy
FT	Foul Time
GFC	Good Faith Challenge
GOTRS	General Orders and Track Rights System
LVP	Low Voltage Power
MSRPH	Metrorail Safety Rules and Procedures Handbook
NOAA	National Oceanic Atmospheric Administration
OJT	On-the-Job Training
PPE	Personal Protective Equipment
RJSB	Roadway Job Safety Briefing
ROCC	Rail Operations Control Center
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
RWIC	Roadway Worker in Charge
RWP	Roadway Worker Protection
SAFE	Department of Safety & Environmental Management
SMNT	Office of Systems Maintenance
SOP	Standard Operating Procedure
WMATA	Washington Metropolitan Area Transit Authority
WSAD	Warning Strobe Alarm Device

Executive Summary

On Thursday, September 3, 2020, at 00:29 hrs., the Office of Systems Maintenance (SMNT), a Roadway Worker in Charge (RWIC), and Low Voltage Power (LVP) Electricians had a Supervisory Power Outage scheduled in General Orders and Track Rights System (GOTRS) at Tysons Corners Station, Tracks 1 and 2 under Exclusive Track Occupancy (ETO) Roadway Worker Protection (RWP). The purpose of the GOTRS request was to perform platform edge lighting repairs and re-lamping efforts. A Student Rail Traffic Controller (RTC) was working on the console in the capacity of Radio RTC. While the Instructor Radio RTC observed the Student RTC on Ops 2, the RWIC requested to cancel the Supervisory Power Outage with ETO RWP and downgraded their request to a Non-Power Outage under Foul Time (FT) RWP. After that, the RWIC requested permission for the work crew to conduct work activities while the third rail power was hot and energized.

The Audio Recording System (ARS) revealed the Student RTC granted permission for the work crew to enter the roadway under FT to conduct work activities. The Student RTC did not verify the correct RWP level was set-up to support the nature of the work at the Tysons Corner Station work area. Rather than downgrading protection, the RWIC was supposed to contact the Rail Operation Control Center (ROCC) and request FT for setting-up the required ETO RWP following the Metrorail Safety Rules and Procedures Handbook (MSRPH) Roadway Worker Protection (RWP) Section 5.13.7. Once all safety equipment was in place, the RWIC was supposed to contact the ROCC and relinquish FT and inform the ROCC that the work limits were under ETO protection; this action did not occur. Note: ETO RWP set-up requires shunts located at 500 feet outside of each end of the working zone, red lanterns or e-flares, "END WORK AREA" mats, and Warning Strobe Alarm Device (WSAD).

Based on Closed Circuit Television (CCTV) footage, the LVP work crew entered the roadway, engaged in work activities, and did not have safety equipment in place. Additionally, during SAFE interviews, two crew members reported they were not wearing their approved Washington Metropolitan Area Transit Authority (WMATA) hardhat/helmet while on the roadway. Note: CCTV review confirmed an employee on the roadway without wearing their helmet/hardhat.

The Advanced Information Management System (AIMS) playback shows prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were implemented as required for FT while the work crew was on the roadway at Tysons Corner, Tracks 1 and 2.

While the work crew was performing work activities on the roadway, the ROCC instructed the RWIC to have all personnel clear the roadway. The ROCC suspended work due to an RWP violation. The ROCC removed the RWIC from service, and management subsequently transported the RWIC for post-incident toxicology testing. The ROCC later removed the RTCs from service for not enforcing proper RWP work location set-up. There were no injuries or damages reported as a result of this incident.

The probable cause of the RWP Violation incident on September 3, 2020, was the employees lack of understanding and implementation of critical safety rules in accordance with Metrorail Safety Rules and Procedures Handbook (MSRPH) Section 5 - Roadway Worker Protection.

Upon analysis of data collected from systems of record and the results of interviews with staff, several procedure violations occurred in this incident. Upon report of entering the roadway, the RWIC, LVP Electricians, and the RTCs were not in compliance with the following MSRPH rules and procedures:

Two members of the work crew were not wearing their head protection when entering or traversing WMATA's roadway. This is not in compliance with MSRPH 5.11, *"Personal Protective Equipment (PPE) Standard for On-Track Safety."*

The RWIC did not use the appropriate level of protection to support the nature of work. MSRPH 5.13, *"This provides all personnel appropriate protection while working on the Roadway. When used effectively and in combinations, personnel that work on the Roadway have even greater protection. Personnel are expected to utilize the correct level of protection to support the nature of the work being performed and address hazards."*

The ROCC allowed the work crew to enter the roadway to engage in work activities while third rail power was energized and using FT as their sole RWP. This action is not in compliance with MSRPH 5.17.4 Third Rail Power Outage Guidelines *"A Supervisory Power Outage is required for requested outages on the roadway not covered by Red Tag Outages (Contact with third rail or components of third rail)."*

SAFE identified several communication breakdowns, employee non-adherence to written procedures, and processes within the MSRPH identified as contributing factors in this event.

As a result of this investigation, SAFE makes the following recommendations:

To SMNT, develop a Lessons Learned with an emphasis on accessing the roadway, setting up work location with proper safety equipment, and the purpose of requesting FT protection.

To ROCC, re-evaluate RTC and Student RTC's oversight responsibilities, granting permission(s) to personnel entering the roadway.

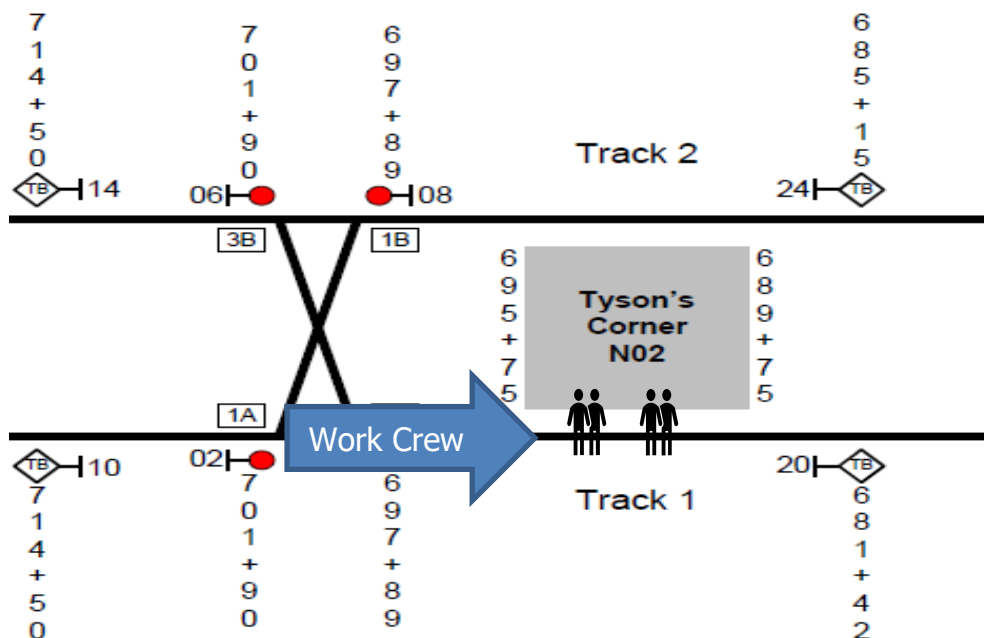
To ROCC, develop a Lessons Learned with an emphasis on accessing the roadway, setting up work location with proper safety equipment, and the purpose of requesting FT protection.

To SMNT, ensure SMNT employees involved in this incident receive Level 4 RWP refresher training.

Incident Site

Tysons Corner Station, Tracks 1 and 2, Chain Marker 689+00 to 701+00

Field Sketch/Schematics



Purpose and Scope

The purpose of this incident investigation and candid self-evaluation is to collect and analyze available facts, determine the probable cause(s) of the incident, identify contributing factors, and make recommendations to prevent a recurrence.

Investigation Process and Methods

Upon receiving notification from the ROCC of WMATA employees on the roadway without proper protection at Tysons Corner Station on September 3, 2020, SAFE dispatched a cross-functional team to assess the scene and conduct the subsequent investigation. SAFE team members worked with relevant WMATA subject matter experts to review facts and data.

Investigative Methods

The investigative methodologies included the following:

- Physical Site Assessment
- Formal Interviews – SAFE interviewed five individuals as part of this investigation. Interviews included persons present during and after the incident, those directly involved in the response process, and Managers responsible for the process. SAFE interviewed the following individuals:
 - Radio RTC
 - Student Radio RTC
 - LVP Electrician Supervisor
 - LVP Electricians
 - LVP Electrician, RWIC

- Documentation Review – A collection of relevant work history information and process documentation contained in Metro systems of record. These records include:
 - Employee Training Procedures & Records
 - Certifications
 - The 30-Day work history review
 - MSRPH
 - National Oceanic Atmospheric Administration (NOAA)
 - ROCC Procedures Manual Review
 - Office of Communications Maintenance
- System Data Recording Review – A collection of information contained in Metro Data Recording Systems. This data includes:
 - ARS playback including Radio and Phone Communications
 - CCTV playback
 - AIMS

Investigation

Based on findings, the ROCC allowed the RWIC and LVP Electrician crew to enter the roadway to engage in work activities under FT protection with energized third rail and without adequately setting up the work location.

According to interviews, the LVP Electrician work crew's assignment was located at Tysons Corner Station, Tracks 1, and 2 under a Supervisory Power Outage with ETO RWP. The RWIC confirmed the form of protection was initially ETO. The RWIC stated, they arrived at Tysons Corner Station and assessed the work. At that point, they realized there was not a lot of work that needed to be done, so they requested to downgrade their form of protection. The RWIC stated that since there was no potential to contact the hot third rail (working on the platform edge lights away from the third rail), they decided to downgrade their form of protection to FT.

Further ARS playback review revealed that the ROCC granted permission for the LVP Electrician's work crew to enter the roadway under FT protection to engage in work activities without setting up their work location with the proper safety equipment described in GOTRS. The RTCs and LVP Electricians were not in compliance with several safety rules, including fouling the roadway, engaging in work activities under FT protection, and correctly setting up the work area. The Power Electricians were not following roadway PPE requirements. The Advanced Information Management System (AIMS) playback shows prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status were correctly in place while the work crew was on the roadway at Tysons Corner, Tracks 1 and 2.

Due to the nature of work being performed in proximity of the third rail, the request to downgrade protection by the RWIC and approval by ROCC was not in accordance with Metrorail Safety Rules and Procedures Handbook (MSRPH) 5.17.4. The RWIC was supposed to contact the Rail Operation Control Center (ROCC) and request FT for setting-up Exclusive Track Occupancy (ETO) under Roadway Worker Protection (RWP) safety rules in the MSRPH 5.13.7. The correct ETO RWP set-up requires shunts located at 500 feet outside of each end of the working zone, red lanterns or e-flares, "END Work AREA" mats, and WASDS. Once all safety equipment was in place, the RWIC was supposed to contact the ROCC and relinquish FT and inform ROCC that the work limits were under ETO protection, which did not happen. The following steps are the ETO "RWIC Procedures to establish ETO Authority:

1. "Contact ROCC and request FT for the purpose of setting up ETO; state line, track number, chain markers, or station names of ETO work limits.
2. Request ROCC to cancel automatic signals, block calls, and prohibit exits on any interlocking of any configuration contained within the work-limits.
3. If applicable, request Third Rail to be de-energized using Supervisory or Red Tag power outage. Refer to MSRP SOP 28 for all power outage requirements.
4. "Personally, verify or designate someone (RWP Level 2 or 4) to verify, with a working Hot Stick or a VAD, that all sections of Third Rail in the work zone are de-energized. This must be done while wearing approved high-voltage electrical safety gloves.
5. Give ROCC confirmation that the Third Rail is de-energized with chain marker locations.
6. Install shunts with two (2) red lanterns or e-flares a minimum of 500 feet outside of each end of the work zone and confirm shunt locations with ROCC.
7. Place a reflective "END WORK AREA" mat in the gauge of the track to identify the work zone for the Roadway Workers.
8. Connect a WSAD(s) within visual and audible range of the work crews on each section of Third Rail in the work zone.
9. Clamp interlocking switch in the desired position, if applicable.
10. When all safety equipment is in place, contact ROCC and relinquish FT, inform ROCC the work limits are under ETO protection."

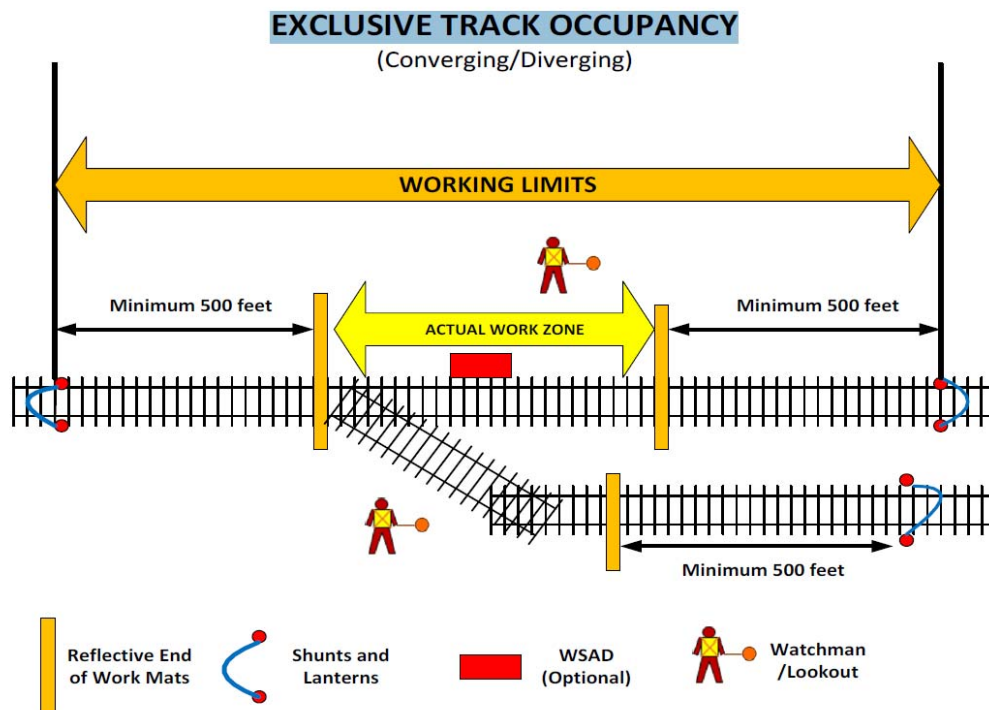


Diagram 1 – Correct ETO protection diagram.

Chronological Timeline of Events

A review of ARS [Radio and Phone] revealed the following:

Time	Description
00:12:17 hrs.	Power Unit notified Rail Operation Control Center Radio RTC that they are standing by at Tysons Corner Station requesting a supervisory power outage at Tracks 1 and Track 2, Chain Marker 684+00 to Chain Marker 706+00.
00:12:39 hrs.	Radio RTC stated, "Power Unit at this time requesting supervisory power outage on Tracks 1 and Track 2, Chain Marker 684+00 to Chain Marker 706+00. The ROCC has your request time at 00:12 hrs., standby and stand clear over."
00:13:00 hrs.	Power Unit responded, "We are standing by at Tysons Corner Station requesting foul over." Radio RTC replied, "that's affirmative, Rail Operation Control Center is out."
00:25:50 hrs.	Radio RTC contacted the Power Unit and stated, "At this time, breakers have been commanded open at your work location with third rail power de-energized." Radio RTC then said, "At this time, you have permission under FT protection to enter the roadway to hot stick and confirm de-energized Track and provide Rail Operation Control Center the Chain Markers. Signal N01-08 is red over." Power Unit responded, "Signal N08-08 is red." Radio RTC responded, "that's a negative Signal N01-08 is red over." The Power Unit responded, "Signal N01-08 is red over." Radio RTC replied, "Signal N05-02 is red over." The Power Unit responded, "Signal N05-02 is red over."
00:26:52 hrs.	Radio RTC advised, "all prohibit exits blue block human form are in place; you have been granted FT protection." The Radio RTC stated, "make them hot stick and confirm that the third rail power is de-energized and provide Rail Operation Control Center with a Chain Marker."
00:27:04 hrs.	Power Unit responded, "I would like to downgrade my supervisory power outage to under FT protection over." Radio RTC replied, "would you be on the roadway over?" Power Unit responded, "that's affirmative." Radio RTC responded, "do you have any contractors working with you over?" Power Unit responded, "that's a negative." Radio RTC replied, "you will downgrade your supervisory power outage to non-power outage, and there are no contractors with you on the roadway." Power Unit responded, "that's affirmative."
00:28:52 hrs.	The Radio RTC announced on Ops 2, "Attention all personnel, third rail power is about to be restored on the entire N Line. Anybody wishes the third rail power not to be restored; you have 1 minute to contact the ROCC or consider third rail power hot and energized time is now 00:29 hrs., out."

00:29:44 hrs.	Radio RTC contacted Power Unit and stated, "At this time, N01-08 Signal is red over." The Power Unit responded, "N01-08 Signal is red over." Radio RTC replied, "N05-02 Signal is red over." The Power Unit responded, "N05-02 Signal is red over." Radio RTC responded, "all prohibit exits blue block human form are in place, you have been granted FT protection for your work area." The Radio RTC then instructed the RWIC "to advise the ROCC once you relinquish your FT. You have to exercise your GOTRS rights and begin your work, over." The Power Unit acknowledged.
02:44:50 hrs.	Radio RTC contacted the Power Unit and stated, "cancel GOTRS rights and clear the roadway, over." Power Unit responded, "at this time, personnel are clear at Tysons Corner Station, Tracks 1 and 2. The roadway is revenue ready, you can restore third rail power, and I am relinquishing my FT." Note: ROCC restored Third rail power at 00:29 hrs.
02:45:42 hrs.	Radio RTC responded, "at this time, you turned in your GOTRS rights at 02:45 hrs., on the N Line due to safety investigations and I have you clear of the roadway." The Power Unit acknowledged.
03:35:42 hrs.	ROCC Superintendent advised ROCC Assistant Superintendent to put someone on Ops 2. ROCC management removed both RTC's from service.

Automated Information Management System (AIMS)

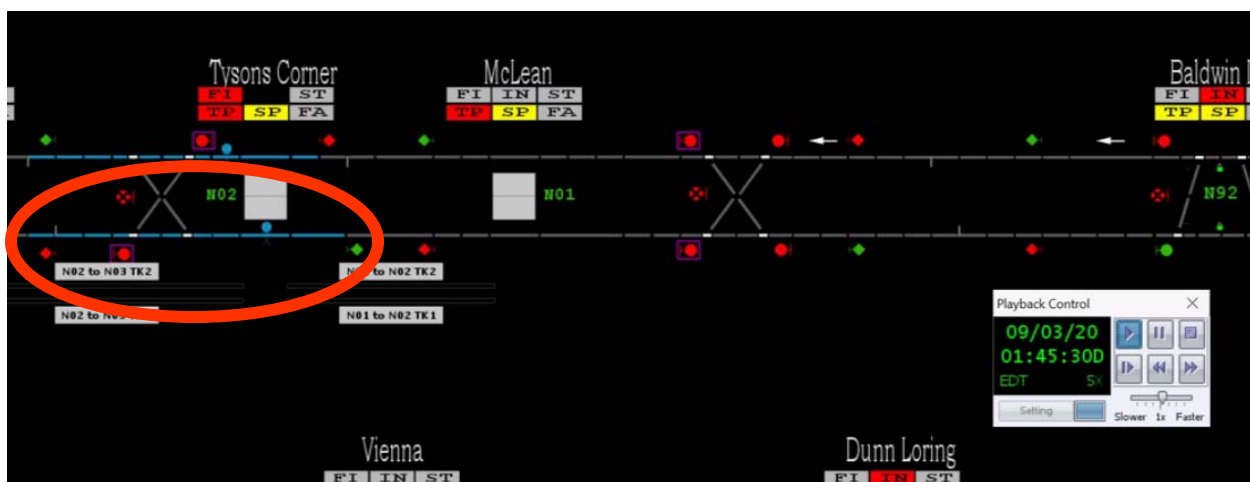


Diagram 2 - Shows prohibit exits, block calls, cancellation of automatic signals, blue block, and human form status are in place while the work crew was on the roadway at Tysons Corner, Tracks 1, and 2.

Communication Maintenance (COMM)

COMM performed a comprehensive radio operational test at Tysons Corner Station, Tracks 1 and 2. The test was found to be normal.

NOTE: After reviewing the Audio Recording System playback, there did not appear to be any communication deficiencies over the radio.

Immediate Mitigation to Prevent Recurrence

- The ROCC instructed the work crew to clear the roadway, and ROCC suspended all work due to an RWP violation.

Findings

- The Student RTC was working on the console as the Radio RTC at the time of the incident.
- Two crew members were not wearing their head protection when entering or traversing WMATA's roadway. This action is not in compliance with MSRPH 5.11, "Personal Protective Equipment (PPE) Personal Protective Equipment (PPE) Standard for On-Track Safety."
- The ROCC allowed the work crew to enter the roadway to engage in work activities while third rail power was energized and using FT as their sole RWP. This action is not in accordance with MSRPH 5.17.4 Third Rail Power Outage Guidelines *"A Supervisory Power Outage is required for requested outages on the roadway not covered by Red Tag Outages (Contact with third rail or components of third rail)."*
- The RWIC did not utilize the appropriate level of protection for the roadway workers. This action is not in compliance with MSRPH 5.13.7, *"ETO Protection."*
- The LVP Electrician stated, "they feel scared" to present a Good Faith Challenge fearing if they are incorrect, their department will hold it against them. Therefore, "they will just accept the risk and not put their job on the line by raising a Good Faith Challenge."

MSRPH Good Faith Challenge 5.6 states, "WMATA shall guarantee each Roadway Worker the right to challenge, in good faith, the effectiveness of Roadway Worker Protection being provided at the work location. The RWIC is responsible for resolving the GFC. The Roadway Worker making the challenge shall remain clear of the roadway until the challenge is resolved or safety procedures are shown to be compliant with the MSRPH. Personnel sympathetic to the challenge may stay clear of the roadway until the RWIC has resolved the challenge."

If the RWIC cannot resolve the issue, the RWIC will escalate the concern to the next level of authority (Responding Authority). If it is determined that the case is valid, the Responding Authority shall direct the RWIC to bring the work area into compliance. If it is determined that the issue is invalid, as evidenced by rules, regulations, and procedures, work will resume. If the Responding Authority cannot resolve the issue, all work shall STOP.

Any adverse action or retaliation in conjunction with filing a GFC or any safety issue shall be immediately reported to the next level of authority and SAFE."

Weather

At the time of the incident, NOAA recorded the temperature as 61°F with low clouds and 87% humidity. SAFE has concluded that weather was not a contributing factor in this incident (Weather source: National Oceanic Atmospheric Administration – Location: McLean, VA.)

Human Factors

Fatigue

Based on SAFE's interview question related to Fatigue Factors and review of the employees' 30-day work history, SAFE determined, the employees' hours of service were within WMATA's *Fatigue Risk Management Policy 10.6* and *Hours of Service Limitations for Prevention of 10.7* and discounted Fatigue as a contributing factor for this event.

Post-Incident Toxicological Testing

After reviewing the RWIC employee post-incident testing results, SAFE determined that the RWIC involved was not in violation of the Drug and Alcohol Policy and Testing Program 7.7. 3/5, therefore, being under the influence of a controlled substance has been excluded as a contributing factor.

Probable Cause Statement

The probable cause of the RWP Violation incident on September 3, 2020, was the employees lack of understanding and implementation of critical safety rules in accordance with Metrorail Safety Rules and Procedures Handbook (MSRPH) Section 5 - Roadway Worker Protection.

Recommendations

The following are the recommendations and corrective actions identified as a result of this investigation. These recommendations and corrective actions are tracked using WMATA's Safety Measurement System Incidents/Accidents (SMS I/A) Module and are verified by SAFE upon completion. The responsible department is identified in the corrective action code. Refer to the SMS I/A module for additional information.

Corrective Action Code	Description
88722_SAFECAPS_SMNT_001	Develop a Lessons Learned with an emphasis on accessing the roadway, setting up work location with proper safety equipment, and the purpose of requesting FT protection.
88722_SAFECAPS_ROCC_002	Re-evaluate RTC and Student RTC's oversight responsibilities, granting permission(s) to personnel entering the roadway.
88722_SAFECAPS_ROCC_003	Develop a Lessons Learned with an emphasis on accessing the roadway, setting up work location with proper safety equipment, and the purpose of requesting FT protection.
88722_SAFECAPS_SMNT_004	Provide SMNT employees involved in this incident Level 4 RWP refresher training.

Appendix A – ROCC Lessons Learned Notice



Key Point: Foul Time (FT) Protection

5.13.5 Foul Time Protection (FT) as outlined in the MSRP, is defined in part as a method of RWP in which a qualified Level 2 or Level 4 Roadway Worker requests that ROCC STOP all rail vehicle movement in a specific area for a limited amount of time...FT may be granted to individuals who are RWP Level 2 or RWP Level 4 qualified that are accessing rooms along the Roadway, to include vent shafts, who are not engaged in work activities.

Raising Awareness:

This incident will continue to be a topic during ROCC manager-led discussions, during documented safety briefings and will be reiterated by ROCC managers during one-on-one discussions with all Rail Traffic Controllers. Questions and/or concerns regarding this topic must be brought to the immediate attention of an ROC Manager.

Incident Analysis:

Earlier this month, a power work crew had GOTRS rights for a supervisory power outage for the replacement of platform edge lights at Tysons Corner (N02) station. Third rail power was de-energized as part of this work. Approximately 20 minutes into the shift, the RWIC downgraded the work to a non-power outage and third rail power was restored and work continued as scheduled. A Safety Officer observed the work crew on the roadway without the proper protection and brought the improper setup of the work location to the immediate attention of the work crew and the Control Center. All work was stopped and the work crew was instructed to clear the work area.

Findings:

Shortly after third rail power was re-energized, the RWIC requested and was granted foul time protection in order to continue the scheduled work. Maintenance crews were on the roadway while in the performance of their duties with third rail power energized with no shunts or mats in place or an AMF for a duration of two (2) hours and 16 minutes under foul time protection.

Corrective Actions:

Although foul time is not defined by a specific amount of time, it is not intended to be used as a level of protection while performing work within an established work zone. And as mentioned in the definition, foul time may be granted to individuals who are not engaged in work activities. Foul time should not be requested or granted for work being conducted on the roadway for an extended period of time.

Prior to granting foul time, ascertain the requestor's purpose to ensure the proper level of protection is in use. Rail Traffic Controllers must also remind personnel working on the roadway to ensure the appropriate safety equipment (i.e. shunts, mats, WSADs, etc.) are used accordingly to prevent injury and/or damage to equipment.



Washington
Metropolitan Area
Transit Authority

M E M O R A N D U M

SUBJECT: Review of Safety Incident
RWP Violation: 20200903#88722

DATE: September 21, 2020

FROM: [REDACTED]

TO: [REDACTED]

Incident:

On September 3, 2020, it was reported that LVEM employees entered the roadway using foul time to do work. [REDACTED] was in violation of the RWP Rules and Procedures.

Findings:

- [REDACTED] passed the post incident test with a negative result
- It was discovered that LVEM employees were in violation of following the RWP safety rules and procedures for requesting Foul Time Protection.

Actions:

- [REDACTED] will be rendered 2 days suspension
- Low Voltage midnight shift employees have reviewed the RWP rules and procedures on the responsibilities on being a RWIC and the use of Foul Time Protection.
- LVEM employees will be scheduled for Lever 4 RWP refresher training in October 2020.

Lessons Learned:

Upon reviewing the incident, it was discovered that the employees did not fully understand the rules and procedures on the use of Foul Time Protection for corrective maintenance issues.

The following attachments are supporting documentation of RWP review of midnight shift employees.

Thank you,

[illegible]

* Discuss foul time with crew. [REDACTED] 9/17/20

Appendix C – Interview Summaries

Instructor Radio RTC

The RTC is a WMATA employee with five years of experience as an RTC and six years of service.

Based on the SAFE interview, the Instructor Radio RTC stated that the instructor Radio RTC was assigned with a Student RTC to perform On-the-Job Training (OJT) before the incident. Note: The Instructor Radio RTC did not transmit any instructions to the crew at Tysons Corner Station, only the Student RTC. However, they did observe communication of the Student RTC and did not take over the console because it was the Student RTC's last week of training, so they did not chime in or take over the console. Instructor Radio RTC recalled the RWIC requesting their GOTRS rights at Tysons Corner Station Tracks 1 and 2, and they were downgrading their protection, and no power outage required to perform their task. The Instructor Radio RTC stated they asked the Student RTC to ask the RWIC if they would have any contractors with them and the RWIC responded only WMATA personnel are with them.

Additionally, the Instructor Radio RTC stated, the Student RTC then advised the RWIC all prohibit exits blue block human form were in place, they have been granted FT protection. The Instructor Radio RTC stated they could not say if personnel requested a downgrade to avoid setting up equipment. Also stated they heard the RWIC say they were doing edge light replacement and third-rail power was de-energized. The Instructor Radio RTC stated they did not know personnel was going to the roadway. The Instructor Radio RTC was informed that SAFE was monitoring the radio and heard the RWIC downgrade protection and advised only FT was needed to perform their task, which alarmed SAFE personnel listening to the radio.

Student RTC

The Student RTC is a WMATA employee with relatively no experience as an RTC with 22 years of service in various positions, including Train Operator and Bus Operator.

Based on the SAFE interview, the Student RTC reported they were in the role of the Radio RTC with the OJT Training Instructor observing their performance. The Student RTC said they were on the radio, taking requests while the instructor observed. The Student RTC stated, "the Power Unit requested their GOTRS rights for a supervisory power outage. Within that request, the RWIC then requested to downgrade the supervisory power outage to a non-supervisory power outage." The Student RTC stated, "they asked the instructor if they need to ask if they have any contractors in their crew, and the instructor said yes." The Student RTC stated, "they then asked the Power Unit and the RWIC stated that there were no contractors, all WMATA personnel are in the crew." The Student RTC stated through their training process; personnel had downgraded from supervisory power outages to non-power outages before, so nothing stood out to them about the request. The Student RTC stated they remember giving the RWIC FT to start their work at 00:29 hrs. At approximately 02:15 hrs., the Student RTC heard SAFE was on the scene, and the crew was on the roadway without the proper equipment set up. At approximately 02:45 hrs., they had the RWIC and the work crew clear the work area.

The Student RTC stated they did not know why the instructor allowed the crew to downgrade protection and enter the roadway to make repairs, and they didn't see why the RWIC wanted to downgrade and never asked the RWIC why. The Student RTC stated the only areas for improvement needed to perform their duties better are learning the different shifts. The Student RTC expressed they feel the training is efficient enough for them to do their job. Additionally, the Student RTC stated, they can ask their manager for help with the training if they feel they need

more help or training. During the interview, SAFE went over FT requirements with the Student RTC per MSRPH 5.13.5.

RWIC

This LVP Electrician is a WMATA employee with six years of service and experience.

Based on the SAFE interview, the RWIC performed a Roadway Job Safety Briefing (RJSB) before work commenced on September 3, 2020, and the scope of work was platform edge light repair and replacement at Tysons Corner Station. The RWIC stated, their crew had to enter the roadway to complete the task, and the form of protection they were initially using was Exclusive Track Occupancy (ETO). The RWIC further stated, once the crew arrived at Tysons Corner Station, they assessed the work. At that point, the RWIC realized that there was not a lot of work needed to be done, so they asked the ROCC for a downgrade since they were not close to the third rail. The RWIC stated, the crew used metallic hand tools used to perform duties on the roadway. However, the RWIC advised they never entered the roadway and used any tools.

Note: When asked if they were familiar with the FT requirements per MSRPH 5.13.5, the RWIC could not elaborate on the requirements accurately.

The RWIC stated if they were not going to downgrade the form of protection, their usual equipment set-up while performing work on the roadway would be shunts, mats, and WSADs. Since they downgraded their protection to FT, they did not set up equipment. The RWIC stated they were on the platform and was monitoring the crew to make sure the crew didn't get close to the third rail. The RWIC said there was no way the crew could have touched the third rail because the crew was working under the platform. The RWIC was aware of the required PPE for personnel to enter the roadway. Based on CCTV, an employee was identified on the roadway without proper head protection [hardhat]. Note: The RWIC did not recall anyone on the crew not wearing a helmet. The RWIC stated there were no communication issues on Ops 2 channel.

Electrician #1

The AA LVP is a WMATA employee with seven years of experience as an Electrician.

Based on the SAFE interview, the AA Electrician stated that the job they were tasked with was platform edge light repair and replacement at Tysons Corner Station. The AA Electrician noted that since there was no potential to contact the third rail, the RWIC decided to downgrade their protection form to FT. The employee was asked if they were familiar with the FT requirements per MSRPH 5.13.5. The employee stated they were not familiar with the requirement. The AA Electrician said they are just a little confused because the ROCC permitted them to do their work under FT protection. The AA Electrician stated, "they did not recall if the RWIC stated the reason for the downgrade in their initial request." The employee said, "They never made a Good Faith Challenge because they were scared to do one." The AA Electrician advised that information stays on your record, and if you are wrong, it will be used against you. The employee stated, "they will just accept the risk and not put their job on the line by raising a Good Faith Challenge." The employee said that there was no communication issue on Ops 2 channel.

Note: Electrician #1 stated, " A helmet was not worn while on the roadway." The AA Electrician said, "due to the nature of the work underneath the platform, wearing the helmet makes the work a lot harder to do."

Electrician #2

The AA LVP Electrician is a WMATA employee with nine years of service and electrician experience.

Based on the SAFE interview, the AA Electrician stated that since there was no potential for the crew to contact the third rail, the RWIC decided to downgrade their form of protection to FT. The AA Electrician was asked if they were familiar with the FT requirements per MSRPH 5.13.5. The AA Electrician stated, before their interview, they read the FT requirements in the MSRPH. The AA Electrician noted that it was their first time seeing the information. The AA Electrician was able to list the required PPE needed for the roadway. The AA Electrician further stated, they were not wearing their helmet on the roadway. Electrician #2 said, "they were confused because the ROCC has the GOTRS information on the scope of work, and they allowed the crew to work under FT protection."